

MATERIAL SAFETY DATA SHEET  
FOR COATINGS, RESINS AND RELATED MATERIALS  
REPLACES NCPA 1-82

MANUFACTURERS NAME

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EMERGENCY TELEPHONE NO.

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DATE OF PREPARATION:

6/16/89

INFORMATION TELEPHONE NO.

(818) 579-6270

SECTION I - PRODUCT IDENTIFICATION

PRODUCT NUMBER: 3-1H-3

MIX RATIO:

PRODUCT NAME: Curing Solution

PRODUCT CLASS: Aliphatic Polyisocyanate

V.O.C. 265 g/l

SECTION II - HAZARDOUS INGREDIENTS

OCCUPATIONAL EXPOSURE LIMITS

| Ingredient | CAS# | Max<br>%Wt. | TLV<br>(ppm) | (ACGIH)<br>mg/cu.m | PEL<br>(ppm) | (OSHA)<br>mg/cu.m | Vapor Pressure<br>mm.Hg. @20°C |
|------------|------|-------------|--------------|--------------------|--------------|-------------------|--------------------------------|
|------------|------|-------------|--------------|--------------------|--------------|-------------------|--------------------------------|

CURING SOLUTIONS:

|  |            |    |     |  |                 |  |    |
|--|------------|----|-----|--|-----------------|--|----|
| Homopolymer of HDI<br>(Hexamethylene Diisocyanate) | 28182-81-2 | 75 | NE  |  | NE              |  | NA |
| HDI Monomer Content (Max)                          | 822-06-0   | .2 |     |  | .02 (Suggested) |  | NA |
| Xylene   | 1330-20-7  | 15 | 100 |  | 100             |  | 21 |
| n-Butyl Acetate                                    | 123-86-4   | 15 | 150 |  | 150             |  | 10 |

NA= Not Applicable NE= Not Established \*= Respirable Dust  
MPPCF= Million particles per cubic foot

Flash Point 91

SECTION III - PHYSICAL DATA

|                            |                       |                   |
|----------------------------|-----------------------|-------------------|
| Boiling Range: 231°F-252°F | Volatile Volume: 30%  | Wt./Gal 8.85      |
| Evaporation Rate:          | Faster than Ether XXX | Slower than Ether |
| Vapor Density: XXX         | Heavier than Air:     | Lighter than Air: |

#### SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flammability Classification: OSHA Class IB Flash Point 40°F. TCC LEL 1.  
DOT Paint, Flammable Liquid, (UN1263)

Extinguishing Media: Use NFPA Class B extinguishers.

☒ Foam ☐ "Alcohol"  
Fog ☒ CO<sub>2</sub> ☒ Dry Chemicals ☒ Water Fog ☐ Other

UNUSUAL FIRE AND EXPLOSION HAZARDS: Keep containers tightly closed. Isolate from heat, sparks, electrical equipment and open flame. Closed containers may explode when exposed to extreme heat. Application to hot surfaces requires special precautions. Self contained breathing apparatus should be worn by firefighters. During emergency conditions, overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

SPECIAL FIREFIGHTING PROCEDURES: Water spray may be ineffective. If water is used, fog nozzels are preferred. Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion when exposed to extreme heat.

#### SECTION V - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE: Can cause irritation to skin, eyes and respiratory tract. Symptoms may be watering of eyes, dryness of throat, coughing, headache, tightness in chest or burning sensation. Allergic reactions may occur in some individuals. Headache, dizziness or nausea may be experienced by some as a result of exposure to solvents.

MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE: Persons with asthmatic type conditions, chronic bronchitis or other chronic respiratory diseases or recurrent skin eczema or sensitization should be excluded from working with this product.

PRIMARY ROUTE(S) OF ENTRY: ☒ Dermal ☒ Inhalation ☐ Ingestion

EMERGENCY AND FIRST AID PROCEDURES: Eye contact: Flush with water for 15 minutes. Consult physician. Skin Contact: Wash affected area with soap and water. Remove contaminated clothing. Consult physician. Inhalation: Remove to fresh air. Consult physician. Ingestion: Drink water to dilute. Do not induce vomiting. Consult physician.

#### SECTION V - REACTIVITY DATA

STABILITY: ☐ Unstable ☒ Stable

HAZARDOUS POLYMERIZATION: ☐ May Occur ☒ Will Not Occur

HAZARDOUS DECOMPOSITION PRODUCTS: By fire - CO, CO<sub>2</sub>, nitrogen oxides, traces of DCN and HDI.

CONDITIONS TO AVOID: Contact with moisture and other materials which react with isocyanates. Temperature above maximum storage temperature. Avoid exposure to heat, sparks, or open flames.

INCOMPATIBILITY (MATERIALS TO AVOID): Avoid contact with water, alcohols, amines, strong bases, metal compounds or surface active materials. Avoid contact with strong oxidizing agents.

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## SECTION VII - SPILL OR LEAK PROCEDURES

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**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** Evacuate non-essential personnel. Remove all sources of ignition (sparks, flames, hot surfaces). Ventilate the area. Equip clean up crew with self-contained breathing apparatus. Dike spill. Cover with sawdust, vermiculite, Fuller's earth. Collect material in open containers.

**WASTE DISPOSAL METHOD:** Conform to Federal, State and Local regulations. Empty containers must be handled carefully due to product residue and flammable solvent vapor.

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## SECTION VIII - SAFE HANDLING AND USE INFORMATION

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**RESPIRATORY PROTECTION:** In outdoor or open areas use NIOSH approved mechanical filter respirator. In restricted ventilation areas, use NIOSH approved chemical/mechanical filters to remove vapors and particulates. In confined areas use NIOSH approved air line type respirators or hoods.

**VENTILATION:** Must be sufficient in volume and pattern to keep contaminant concentration below TLV (NIOSH) or PEL (OSHA).

**PROTECTIVE GLOVES:** Required, butyl rubber recommended.

**EYE PROTECTION:** Required. Use goggles, face shields or safety eyewear with sideshields.

**SKIN PROTECTIVE EQUIPMENT:** Protective creams where skin contact is likely.

**HYGIENIC PRACTICES:** Wash hands for eating or using bathroom. Remove and wash contaminated clothing before reuse. Wear chemical resistant boots.

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## SECTION IX - SPECIAL PRECAUTIONS

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**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:** Do not store above 100°F. Store in large quantities only in buildings designed to comply with OSHA 1910.106. Keep containers closed and upright to prevent leakage. Do not store or use near heat, sparks, or flames.

**OTHER PRECAUTIONS:** Avoid prolonged or repeated contact with vapor or spray mist during application or curing.

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